

## Misalignment of the deck plate and lubricating the bushing Model MCW

A misaligned deck plate and/or an unlubricated bushing can cause binding between the main shaft and the bushing in the deck plate. When this happens the windlass loses significant power. A new motor can usually overcome this problem, however the motor runs much harder than it should and will wear out prematurely. The deck plate bushing also needs periodic lubrication to keep the windlass running smoothly.

Refer to the drawing below. The surface that the deck plate is mounted on ( A – A ) needs to be parallel with the surface the three mounting “feet” mount against ( B – B ), marked in red on the drawing below. The three mounting bolts need to be tightened evenly. To check this remove the capstan from the main shaft. There is a washer and screw holding the capstan down. If the capstan does not come off consult the “removing the windlass” instructions. The 1<sup>st</sup> step is removing the capstan.

Grasp the shaft and attempt to turn one way and then the other. The shaft will not turn, however you should feel a slight movement. This is the clearance between the gears. It is called gear wink and is only several thousandths of an inch. When everything is aligned properly you should be able to feel this gear wink when you attempt to turn the shaft back and forth. You can insert a small screw driver through the drive pin hole and attempt to move the shaft back and forth. If you cannot feel any wink between the gears then there is probably binding between the main shaft and the bushing.

Loosen the three mounting bolt nuts. Check again for gear wink. It may be necessary to use a rubber mallet or block of wood and a hammer to jar things loose. While the capstan is off take some light machine oil and drop several drops where the shaft meets the top of the bushing while running the windlass. Work in the oil. When you take your foot off the switch the windlass should glide. If it stops instantly there is significant binding.

The object of the fine tuning of the alignment of the deck plate is to tighten the three mounting bolts evenly without losing the gear wink. Tighten each bolt hand tight and then check for gear wink. Then tighten the three bolts a half a turn at a time checking for gear wink after each tightening. This takes patience and is best accomplished with two people. One below tightening and one above deck checking for wink.

